

TRIPURA GAZETTE



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GOVERNMENT OF TRIPURA FOREST DEPARTMENT

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Date: 18/04/2020

NOTIFICATION

NTFP POLICY of TRIPURA

Section-A: Introduction

Tripura is endowed with a variety of NTFPs like bamboos, broom grass, thatch grass, dhup and different kinds of edible vegetables, medicinal plants, roots and rhizomes, fruits, nuts, seeds and many others.

Gradually it has been recognized that these so called NTFPs/Non Wood Forest Products (NWFPs)/ Minor Forest Products (MFPs) have much greater socio-economic relevance particularly in the life of rural and forest dependent communities. These products offer great relief to forest dependent communities particularly during lean periods characterized by crop failures. Thus, the people with abundance of these resources around them get naturally equipped with the coping mechanism, particularly during period of shortage of food.

NTFPs are not only subsistence forest products but also source of income and nutritional security to the people and play role in poverty alleviation, and socio-economic development of the area. Besides, NTFP species are also of great ecological importance. Recognizing the importance of this group of plants, NTFPs, in the life of local people and in the rural economy of the State the government decided to give greater thrust to the development of these forest resources by establishing a dedicated **Centre of Excellence for NTFPs** to work as strategic knowledge based single window source for responsible use and management of NTFPs.

Section-B: Definition of NTFP

NTFPs are forest produces except timber and thus include fuel wood, charcoal, bamboo, fodder, fencing poles, medicinal and aromatic plants and a variety of foodstuffs such as vegetables, fruits and nuts, mushrooms, fibre, resins and gums etc. NTFP will cover all Non-Wood Forest Product (NWFP) and Minor Forest Products (MFP) as defined under Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act 2006.

Section-C: Existing NTFP Scenario in the State

1. The bamboo resources are reported to be occurring over an area of 3617sq km in the government forests of the State (FSI Report, 2017). In addition, bamboo in small private holding also occurs over a sizable area. Bamboo based economic activity has increased manifold. In addition to bamboo stems, bamboo shoots are also extracted, mostly for consumption within the State. Gregarious flowering, over exploitation, illegal felling, smuggling to Bangladesh, fire, grazing, shifting cultivation, shoot collection hitting at regeneration and increasing demand have also resulted into resource depletion. The resource augmentation has not kept pace with the speed of growing demand of bamboo as raw material for making scented sticks and other handicraft items. However, there is a growing emphasis on value addition with an objective of providing more employment to rural poor.
2. In addition to bamboo, there are a number of NTFP items, used as food, fodder, thatch, broom grass, medicine, dye etc. Certain promising species as *Homolemona aromatica* (Gandhaki) *Litsea glutinosa* (Menda), *Amomum aromaticum* (Large cardamom), *Piper nigrum* (Black pepper) *Hiptis suaveolens* (Chia) etc have to be given place in the plantation programs. Working plan placed emphasis on realization of forest revenue but there was no specific regulation or provision for the development of these resources.
3. It has been revealed that the extraction of NTFPs often involves destructive practices. Further it becomes unsustainable due to unscientific harvesting practices. Therefore, their productivity is gradually declining. As a result of this, the forage distances are increasing persistently thereby making the collection unviable.
 - 3.1. Drivers of depletion of NTFPs are jhum cultivation, over exploitation and fragmentation of lands restricting the economies of scale. Cultivation costs are high rather collection is easier and cheaper, value addition is not economical, forward and backward market linkages are not well established. There is much dependency on local traders who tend to exploit the margins.
4. There is lack of data on availability, use, value addition and effective monitoring due to which unsustainable harvesting takes place and slowly the resource base gets eroded.
5. Effective integration of NTFPs in the micro plan and working plan prescription and its implementation needs to be reflected by scientific management practices.
6. In order to mitigate the adverse consequences of climate change, we have to conserve and protect the forests and biodiversity. Tripura is extremely rich in biodiversity which if, properly conserved and harnessed, it can play a significant role in soil and moisture conservation and also provide sustainable livelihoods to the local communities.
7. Forward and backward linkages and value addition for income / returns are poorly defined. Sustained handholding with R&D Institutions/ Bankers/ Insurers/ JFMCs/ certification agencies are not there to ensure long term knowledge sharing, extension and training mechanism.

The proposed NTFP policy is aimed at developing a long-term strategy, for creating an executive framework and to enumerate strategic interventions for an integrated development of NTFP sector in the state of Tripura.

Section-D: Existing Legal framework, Policies and Acts

1. National Forest Policy, 1988

- 1.1. One of the objectives of National Forest Policy, 1988 has been to meet the requirements of fuelwood, fodder, minor forest produce and small timber of the rural and tribal people.

2. Biological Diversity Act, 2002

- 2.1. The act provides for conservation, sustainable use of existing biodiversity including NTFPs and equitable benefit sharing with local communities and forest dwellers. The act also envisages constitution of State Bio diversity Board to advice, regulate and ensure equitable sharing of the benefits arising out of the utilization of biological resources. The Biodiversity Management Committees (BMC) constituted at village, block and district levels may levy charges by way of collection fees from any person for accessing or collecting any biological resource for commercial purposes from areas falling within its territorial jurisdiction. The Act also prescribes Biodiversity Registers to be maintained for monitoring the status of biodiversity.

3. The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 (FRA 2006)

- 3.1. As per FRA 2006, the Patta holder has right of ownership, access to collect, use, and dispose of minor forest produce (right of ownership to the extent of their utilization) which has been traditionally collected within or outside village boundaries and they will have to protect the wild life, forest and biodiversity. The rights have been granted to 1.26 lakh families and forest dwellers over 1.86 lakh ha of forest land. These lands have vast treasure of biodiversity and forest wealth.

4. National Working Plan Code, 2014

- 4.1. National Working Plan Code, 2014 authorises Working Plan Officer to plan, undertake survey and assess for estimation of few prioritised species of NTFPs. Further, he has to make assessment of potential NTFPs through available old records, local enquiry and plot enumeration data and estimate production of NTFPs (fruits, flowers, leaves, seeds, etc.) of tree origin.

5. Industrial Policy, 1991

- 5.1. The Industrial Policy made emphasis on rural employment through processing of bamboo and other natural resources. Driven by market forces, the communities are extracting more and more NTFP and bamboo to feed to the expanding requirements of herbal and bamboo processing industry.

6. State Bamboo Policy, 2001

- 6.1. The State bamboo policy recognized the economic potential of bamboo resources of the State but observed that only 1 - 2 % of total extracted bamboo is used for value addition, which means its benefits are not being fully realized.
- 6.2. The Policy advocated for a planned management and sustainable use practices should be in place to benefit the common man through market-led community-based utilization, and sustainable use practices.

7. Policy on Medicinal Plants of the State of Tripura, 2006

- 7.1. The State policy on medicinal and aromatic plants laid emphasis on the increasing demand of natural products. Despite the best efforts of National Medicinal Plant Board and the State Medicinal Plant Board, to promote domestication and cultivation of some of the important medicinal plants, about 90% of the raw material requirement of the industry still comes from the wild resources. The increasing requirement of industry and also to meet the growing domestic requirements of food and herbal medicines, there is a continuous pressure on resources without any commensurate efforts to replenish them.

8. Afforestation Policy of the State

- 8.1. The State afforestation policy provides for plantation of species which cater to different local needs and uses. Species of NTFP such as bamboo, cane, medicinal plants, herbs, shrubs and climbers which enhance bio-diversity and maximize the returns to local communities to be given priority in different afforestation models. The natural forests are to be managed to supply bulk of required needs of NTFP. Available NTFP resources are proposed to be conserved, rejuvenated and developed to support conservation endeavours and to provide enhanced benefits on sustainable yield basis.

Section-E: Vision

To conserve, develop and sustain the NTFP resources in consonance with the ecological, economic and socio-cultural needs of the state so as to empower communities to use the products sustainably, while ensuring income augmentation, value addition, access, inter-generational equity and ecological security.

Section-F: Goals

The goal of NTFP policy is to ensure conservation of existing natural forests, restoration of degraded forests through people's participation, improvement of their livelihood through responsible management and sustainable use of non-timber forest resources and access benefit sharing in the State. The goal of the policy is also to develop NTFP resources in such a manner that the state becomes a leading producer of these products

and contribute to the income of forest dependant people and improve the socio-economic health of the state.

Section-G: Objectives

The main objectives of NTFP policy are:

1. To support conservation and sustainable management of NTFPs.
2. To identify scope of value addition in respective NTFPs and income augmentation of communities.
3. To identify and wherever necessary, to assign the rights and responsibilities of NTFP users (Joint Forest Management Committees, Biodiversity Management Committees and other forest dependent households) for sustainable development of the sector.
4. To encourage the integration of NTFP resource management with contemporary forestry practises.
5. To raise awareness of NTFP issues within the private land ownership (bamboo in particular) Vis-a- Vis forest management practices.
6. To facilitate utilization of NTFPs in a scientific manner, thereby ensuring its sustainability.
7. To channelize the resources and ensure in promotion of enterprise development in NTFP sector.
8. Community involvement in protection of forests and protected areas in the State.
9. To evolve a single window resource centre to provide knowledge about economics, extraction, storage, transportation, packaging, value addition, marketing and certification.
10. To help and enable communities to reap the benefits from NTFPs through marketing channels and industrial linkages.

Section-H: Approach

Tripura NTFP Policy adopts a two-pronged approach:

1. To control depletion of NTFP resource base through responsible utilization and scientific management practices by deployment of CAH – Conservation, Augmentation and Harvesting plan.
2. Participatory management of resource base by active involvement of community-based institutions like Joint Forest Management Committee, Biodiversity Management Committee and private sector participation wherever appropriate.

Section-I: Strategies

The strategies have been worked out based on scope, provision and necessity. The five-fold strategic framework has been modelled for NTFP production, sustainable use and for augmentation of economic opportunities to forest dwellers. This five-fold strategic plan is the core of Tripura NTFP Policy and comprise of the following elements:

- 1 Conservation**
- 2 Sustainable Utilization**
- 3 Productivity and Yield Improvement**
- 4 Livelihoods and Income Augmentation**
- 5 Training and Capacity Building**

The details are described as under:

1. Conservation:

- 1.1. In terms of scientific resource management, the policy adopts an acclaimed approach of Conservation, Augmentation and Harvesting (CAH) plan. Conservation is the first of these three components.
- 1.2. The conservation programme under this policy shall encompass preservation at ecosystem, species and genetic levels. Conservation strategy includes the species of both economic and ecological importance.
- 1.3. For the purpose of this policy, Conservation is defined as “protection to those natural areas which inhabit viable breeding populations for each of the prioritized species”. These designated areas may be labelled as Resource Conservation Areas (RCAs) in line with Medicinal Plants Conservation Areas (MPCAs) as developed by National Medicinal Plants Board. Also, this approach is comparable to existing framework of Community Biodiversity Conservation Areas (CBCA). Once designated as RCA (or MPCA or CBCA the case may be) the earmarked area shall be protected through regulatory or participatory mechanisms on a case to case basis.
- 1.4. All the conservation programmes / projects shall be undertaken from available resources as well as external resources (like dovetailing with other projects/schemes)
- 1.5. The policy envisages that, Conservation programmes shall be of two kinds.
 - 1.5.1. The first set of programme shall focus on “protection of those species of ecological importance with narrow distribution and are considered to face conservation concerns. Under this component, scientifically designed conservation projects shall be drawn for identified/ prioritized species of NTFP.
 - In these cases, the Department of Forests is empowered to allow the commercial use of the species only for production of value added products (VAP) and may restrict the supplies of Raw-materials outside the state of Tripura.

- An illustrative list of such species is contained in Table-1. In this context, it is emphasized that the list is illustrative in nature. Concerned authorities/ stakeholders are empowered to enumerate other species and implement conservation projects as deemed fit from time to time.

Table-1: Showing an illustrative list of species identified/ prioritized for purpose of Conservation programmes & Projects:

S. No	Local Name	Botanical Name	Justification/ Remarks
(A) Group of Bamboos			
01	Bom/ Betua	<i>Bambusa cacharensis</i>	Endemic species and known to be distributed narrowly. Collection from a designated plantation area may be allowed only for production & marketing of Value added Products. Trading as Raw material may be restricted.
02	Paura	<i>Bambusa polymorpha</i>	Limited distribution in South District only. Valuable for ornaments, basketry and artefacts. Use may be permitted only for value added products.
03	Dolu	<i>Schizostachyum dullooa</i>	Used for making flutes of high value. Use may be permitted only for value added products.
(B) Other Species			
04	Agar	<i>Aquilaria malaccensis</i>	High-value species but requires a complex ecological interaction for realization of economic value. It is known to face high-degree conservation concerns. In view of its status as State Tree, available natural populations need to be

			protected and managed scientifically. Please see special note*.
05	Dhoop	<i>Canarium strictum</i>	Production of Dhoop is economically rewarding NTFP.
06	Jalpui	<i>Elaeocarpus floribundus</i>	Fruits are used locally as vegetable. The species is reported to be endangered in the state.
07	Ghila	<i>Entada phaseoloides</i>	Species reported to be endangered in the state.
08	Chalmougra	<i>Gynocardia odorata</i>	Seed oil is used for medicinal purposes. Because of narrow distribution, requires conservation measures.
09	Chalmougra	<i>Hydnocarpus kurzii</i>	Seed oil is used for medicinal purposes. Because of narrow distribution, requires conservation measures
10	Nagkeshar	<i>Mesua ferrea</i>	The species is recognized to be state flower.
11	Nokka/ Kanak	<i>Oroxylum indicum</i>	For conservation of local gene pool Also used for food & nutrition locally
12	Sarpagandha	<i>Rauvolfia serpentina</i>	The species falls under high-volume trades. In most of the habitats, depletion is reported.
13	Ashoka	<i>Saraca indica</i>	The species is associated with medicinal uses. Conservation threats prevail in most of its natural habitats.

*Special Note on Agar:

Many technological developments are reported for artificial methods for production of Agarwood/ resins. As per the available reports, private plantations for Agar have been initiated by enthusiastic farmers/ entrepreneurs. This policy advocates the need for leveraging these developments for promoting Agarwood production in the state. Department of Forests is encouraged to formulate special projects, schemes for this purpose in collaboration with agencies like NCE, State Medicinal Plants Board, Tripura Biodiversity Board and stakeholders like Industry, farmers, JFMCs etc.

1.5.2. The second set of programmes cover the species identified for sustainable use and brought under the management framework of CAH. An outline of “conservation element under CAH framework is provided under 1.3.

- An illustrative list of these species is contained under 2.1.3.

2. Sustainable Utilization of Resources:

2.1. General:

2.1.1. The principle of sustainable utilization for the purpose of this policy adopts the definition of the term as laid down in the UN Convention on Biological Diversity (CBD) and replicated in the Biological Diversity Act-2002.

2.1.2. In the CAH framework as envisaged under the policy, Augmentation & Harvesting (A & H) components relate to sustainable utilization.

2.1.3. The focus shall be on 18 prioritized species which are known to be traditional sources of income to communities as under.

Sl. No.	Botanical Name	Local Name	Justification/ Remarks
<i>(A) Group of Bamboos</i>			
1	<i>Bambusa tulda</i>	Mritinga	Requires lesser focus on conservation elements. Used for Agarbathi sticks & handicrafts.
2	<i>Dendrocalamus longispethus</i>	Rophai	Edible species. Used in common housing, furniture & handicrafts.
3	<i>Melocanna baccifera</i>	Muli	The species is considered to be useful for emerging needs of natural straws. Requires lesser focus on conservation.
4	<i>Thyrsostachys oliveri</i>	Kanak kaich	Valuable species in terms of furniture. Conservation of gene pool is considered

			important for long-term interventions.
(B) Other Species			
5	<i>Aegle marmelos</i>	Bael	Has both medicinal and food applications.
6	<i>Amomum aromaticum</i>	Badi Ilaichi/ Large cardamom	Livelihoods importance.
7	<i>Averrhoa carambola</i>	Kamranga/ Kamrakh	Food & nutrition.
8	<i>Dillenia indica</i>	Chalta	Food & nutrition
9	<i>Embllica officinalis</i>	Amla/ Aonla	Food & medicinal. Part of Triphala
10	<i>Flacourtia jangomas</i>	Tekroi/ Subra	Food & nutrition.
11	<i>Hiptis suaveolens</i>	Chia	Livelihoods.
12	<i>Homalomena aromatica</i>	Gandhaki/ Sugandhamantri	Aromatic/ essential oils.
13	<i>Litsea glutinosa</i>	Menda/ Maida	Incense stick industry & medicinal.
14	<i>Spondias pinnata</i>	Amra	Food & Nutrition
15	<i>Parkia roxburghii</i>	Youngchak	Food & Nutrition. Also used in folk medicines. The species is distributed in the NE states. Hence, requires appropriate interventions.
16	<i>Terminalia bellerica</i>	Bahera	Medicinal (part of Triphala)
17	<i>Terminalia chebula</i>	Harar/ Harad	Medicinal (Part of Triphala).
18	<i>Thysanolaena maxima</i>	Arjun flower/ Broom stick	Well established source of livelihoods. Though conservation may not be mandatory, sustainable resource management is necessary.

2.1.4. Communities shall be encouraged to widen the basket of NTFP species to further augment the economic opportunities. For this purpose, the Centre of Excellence (NCE) is empowered to explore and analyse such opportunities, build knowledge base and acquire appropriate technologies. Further, NCE is mandated to initiate capacity building activities and strengthen the intervention in a consistent manner.

2.1.5. While systematic exploration and development of newer economic opportunities is encouraged in all respects- this strategy also comes with a caution.

In no case, communities shall be involved in collection, cultivation of any species in an arbitrary manner, even if the species considered to have inspiring demands in or out of Tripura state. This policy restriction emphasizes the need to consider the financial and social vulnerability of communities.

2.1.6. In addition, the economic importance, the policy lays emphasis on the species of social importance. Plants which have application value in ensuring, food, fuel, fodder and health security, the species which have value in agriculture, animal husbandry, poultry, fisheries etc. are integral to this policy. NCE is mandated with systematic development and utilization of such species on a continuous basis without restricting itself with the priorities illustrated above.

2.1.7. Traditional Foods: Many of NTFP species are identified and documented for their use as food substances. These include but not limited to *Averrhoa corymbosa*, *Solanum torvum*, *Citrus maxima*, *Curcuma domestica*, *Delinia indica*, *Flacourtia jungomas* etc. Some of these species are prioritized in the above lists. Appropriate interventions to ensure their sustainability shall be drawn from time to time for other species too.

2.2 Inventorization and mapping:

2.2.1 There is need for systematic mapping and inventorization of NTFP resources of the state and their present status (ecological, social and economic).

2.2.2 Detailed inventory of bamboo & other NTFP resources inside and outside forest areas should be carried out every five years. As a matter of policy, these studies are also supported by habitat characterization and enumeration of important, natural associations.

2.2.3 Digital mapping of few important NTFP resources by using remote sensing applications will also help in getting the NTFPs scenario at a glance. The information will be much useful for planning for restoration and extraction of NTFPs and monitoring.

2.2.4 As envisaged under this policy, introduction for newer species into livelihoods basket of communities is desirable. During the exploratory phase of such an endeavour, resource mapping and inventorization is important.

- 2.2.5 This work of resource mapping and inventorization can be assigned to technical organizations/ academia and NGOs having expertise in digital enumeration or field-based studies or both. Where feasible, both TFD & NCE may carry-out these studies in collaborative mode.

2.3 Survey by Folk taxonomists:

- 2.3.1 Folk taxonomists are to be involved for carrying out surveys the important NTFPs based on their traditional skills of plant identification and local nomenclature.
- 2.3.2 Their services may also be used to develop repository of knowledge on traditional practices concerning resource management and utilization in synergy with Peoples Biodiversity Register (PBRs) prepared under the provisions of Biological Biodiversity Act-2002.

2.4 Assessment of ecological status:

- 2.4.1 Resource augmentation is a key to sustainable management and use practices. Before permitting extraction of any NTFP in the wild their current ecological status (extent of occurrence, density, regeneration, site conditions etc.) be assessed.

2.5 Documentation of Inventories:

- 2.5.1 Assessment be made mentioning scientific name, local name of the species, type of plant, part used, location where found (compartment/beat/range), area in ha, potential harvesting quantity per hectare, estimated harvest/ hectare.

2.6 NTFP Calendar (Seasonal/Annual):

- 2.6.1 NTFP Calendar (Seasonal/Annual) indicating the location-specific action plan with recommended time schedule for seed collection, nursery, plantation, harvesting and marketing has to be developed.

2.7 Resource Augmentation:

- 2.7.1 Once community gets economic opportunities from any (existing or newly introduced) NTFP resource, appropriate programmes/ projects are mandated for resource augmentation. The objective of resource augmentation plan is to prevent the gaps between natural regeneration and the harvesting cycles.
- 2.7.2 Resource augmentation plan for respective species should include all opportunities to ensure sustainable volumes for harvesting in favour of livelihood avenues. This may be done in two distinct modes.
- a) Production in Augmentation plots under CAH framework.
 - b) Introduction of the species in agroforestry models which will be promoted in the lands assigned to communities under FRA-2006.
- 2.7.3 Any research and development activities and promotion of nursery/ production of QPM are integral to the resource augmentation plans.

- 2.7.4 Research activities under this aspect shall be taken-up in collaboration with institutions having necessary competence and resources.
- 2.7.5 Activities of De-centralized People's Nursery shall focus on NTFP species henceforth. Species identified for augmentation shall be entrusted to the people's nurseries. Where necessary, new nurseries of this pattern shall be established.
 - a) The planting stocks produced under this regime may be utilized for Augmentation plots and agroforestry sites of communities.
- 2.7.6 Nursery of QPM of identified species also to be raised by departmental nursery on a need basis so as to support resource augmentation programmes year over year. Where necessary, a mandatory production of 25% of nursery stock of NTFP including bamboo is to be raised.
- 2.7.7 All nurseries will have to be certified by authorised agencies.
- 2.8 Maintenance of Model demonstration Plots of NTFP:**
 - 2.8.1 Model Demonstration plots of NTFP's shall be kept functional as a part of NCE activities.
- 2.9 Improvements in Harvesting Practices:**
 - 2.9.1 Sustainable harvesting and processing techniques be promoted to prevent over exploitation of NTFPs which are of socio-economic importance to the communities.
 - 2.9.2 Harvesting practices shall be improved on the basis of both modern and traditional techniques.
 - 2.9.3 It is emphasized that Package of Practices (PoP) and Checklists of *Do's and don'ts* may be developed for each NTFP and promoted through IEC (information, Extension and Communication activities) so that the yield is optimized without harming the life and land (plant, biodiversity and soil). This activity needs to be carried out in a phased manner starting species prioritized under 2.1.3.
 - 2.9.4 Development and publication of Package of Practices (PoP) is to be undertaken by NCE on the prioritized species enumerated under 2.1.3 to start with.
 - 2.9.5 Scientific studies shall be instituted to establish harvesting limits where needed. Models developed so, shall be deployed at field level on a continuous basis.
 - 2.9.6 Protection of plantation of NTFP species should be ensured. JFMCs are to be involved for protection apart from monitoring by departmental official.

2.10 Plan for Resource Generation: Bamboo & Other NTFPs:

2.10.1 Bamboo resources are fast declining due to various anthropogenic pressures. It is necessary to take up large scale bamboo plantation under different central as well as state schemes. A 10-year prospective plan for bamboo plantation will have to be drawn up to raise productive bamboo forest over an area of at least 10% of the total bamboo forest of the state annually using high quality planting material.

2.10.2 Need for systematic exploration and promotion of underutilized NTFP species native to the state is reiterated. A number of NTFP species other than bamboo have been identified to be occurring in the state. These are Jhum haldi (*Curcuma longa*), Kali haldi (*Curcuma caesia*), Pipulu (*Piper longum*), Chopchini (*Smilax* sp.), Galanga (*Alpinia galanga*), Shatti (*Hedychium spicatum*), Banaba/Jarul leaves (*Lagerstroemia speciosa*).

a) These species are well recognized by JFMC members and therefore they need to be planted in AR/ANR areas. Over a period of 10 years each JFMC will have to be encouraged to plant each year these species over an area of 5 hectares.

b) Thus, in 10 years period there may be a total area coverage of 20,000 hectares (about 1000 JFMCs could cover this area). The replenishment will be carried out on year to year basis.

2.11 Compulsory raising of plantation of NTFP:

2.11.1 The plantation programme of the department every year should have at least, 20% of NTFP species excluding Bamboo. Planning of Nursery production is also done accordingly. NAP Plantations (suitable model) can be considered for augmenting NTFP resource base in JFMC areas.

2.12 Incentivising cultivation:

2.12.1 Emphasis may be laid on incentivising cultivation of NTFP's through SHG model. There should be dis-incentives on un-sustainable collection from wild.

2.13 Providing subsidy:

2.13.1 Forest Department may take efforts for facilitating subsidy/interest subsidy/ Priority sector lending's for NTFP's.

3. Productivity & Yield Improvement:

3.1 Sale-aggregation models can be considered for NTFP's to improve productivity.

3.2 Levels of productivity shall be reviewed on a continuous basis both in terms of quality and quantities of outputs. In order to review and make periodical

improvements, it may be necessary to document existing methods plantations of NTFP species in forest areas and may be labelled as Protocols for Plantation Activities (PPA) and this document may also include the nursery procedures.

a) The PPAs may be developed and documented in coordination with Colleges of Forestry and Forest Research Institutes.

3.3 Incremental improvement in productivity should be achieved for each of the species through periodical review of Protocols for Plantation Activities (PPA) documents and up-date them as necessary.

3.4 For enhancement of productivity, adaptation of all feasible methods like soil ecosystem management, use of soil amendments, concurrent plantation of nitrogen fixing legumes, and use of pre-qualified, uniform planting stocks/ QPM may be considered and evaluated in a collaborative mode keeping in view the practical feasibility in forestry scenario.

3.5 Development and deployment of new cultivars/ ecotypes need to be considered to enhance yield of marketable produce.

4. Livelihoods & Income Augmentation:

4.1 Livelihood option:

4.1.1 The policy considers the importance of NTFP from livelihoods perspective. Hence it calls for multi-dimensional approach to augment income opportunities from the resources- so as to improve the quality of life for forest dependent communities.

4.1.2 Simultaneously, it should be ensured that resource does not get depleted and the economic gains to the community are sustained on long run.

4.2 NTFP in Agroforestry model:

4.2.1 Agroforestry model may be adopted while raising NTFP plantation which will ensure early return and sustainable income of the patta holder/ JFMC members using the land resources assigned to them in an effective manner. It is important that the concept of multi-functional agroforestry is promoted among Patta holders and that larger part of the assigned is brought under this model with their engagement.

4.2.2 This policy consideration is based on the advantages of agroforestry models over mono-cropping/ plantation models. It is believed that, these models would bring a change in the land use patterns in favour of both economic and ecological gains.

4.2.3 In case of utilization of assigned lands, patta holders/ land assignees for agroforestry models, it is mandatory to include NTFP species.

4.3 Emphasis on Value Addition at Community Level :

- 4.3.1 Focus has to be on making value added product for NTFP species enumerated in 2.1.3. Particularly the sale of raw materials for species like, Broom grass, Large cardamom, Gandhaki and Menda should be discouraged at various levels.
- 4.3.2 Major emphasis be given on multiple use of bamboo like handicraft, furniture, agarbatti, bamboo wood/ mutha/ umbrella handle.
- 4.3.3 Processing and production of value-added products from wild Banana fibre shall be prioritized under this component. NCE shall work upon sourcing low-cost technologies for this component.
- 4.3.4 Opportunities for value added products may be considered from the perspective of marketing avenues within and out of the state.

4.4 Development of 3-Tier Cluster Model for Value Addition:

- 4.4.1 Under this model, collection, primary value addition takes place at collection and aggregation centres.
- 4.4.2 Any secondary level value addition will be carried out at higher level/ pooling point.
- 4.4.3 Advanced Processing Centres shall undertake final stage of value addition leading the production of marketable end product. On a case to case basis, these facilities may be set-up in collaboration with business partners, social enterprises.

4.5 Cluster Development & Provision for Common Facility Centres:

- 4.5.1 Collectors of NTFP collectors shall be converged into collection/ production clusters.
- 4.5.2 Community Common Facility Centres (CCFCs) shall be established at all strategic clusters/ locations to undertake primary processing and value addition. The core objective of CCFC is to ensure the ease of transactions by avoiding bulk-transports.
- 4.5.3 The design and infrastructural needs of CCFC should be based on the species-specific processes, level of value addition (primary or secondary) scale of activities and viability of operations.

4.6 No export without substantial value addition:

- 4.6.1 Selected NTFP species shall not be allowed to export without making substantial value addition. The list of species for the purpose may be drawn by NCE from time to time keeping in view the market demands and process competencies of the community.

4.7 Enabling product innovation and export:

- 4.7.1 Effort should be made to sensitize the stake holders to get better price of the product. Innovative products are to be developed in association with creative

institutions as NID, CFTRI etc. for capturing international markets and promote exports.

4.8 Food Processing:

4.8.1 Some of the NTFPs used as foods offer good scope for food processing, particularly for Bamboo shoots and for Jackfruits, produced under forest conditions. Opportunities for promotion of NTFP based food processing need to be explored.

4.8.2 Food processing activities may be considered at community levels or by encouraging private sector players. When fruits processing units are established in the state, pineapple production promoted by horticulture department can also be leveraged to improve upon the commercial viability. Therefore, the policy lays emphasis on inter-departmental coordination in this context.

4.9 Beekeeping as a Source of Income Generation:

4.9.1 As of now, beekeeping as an occupation is not explored well in the state. Rubber plantations offer immense scope as source of floral nectar.

4.10 Cultivation/ Ex-situ Production:

4.10.1 Under the aegis of departmental activities, promotion of agroforestry is being promoted actively. These models should be utilized systematically, for cultivation of medicinal and aromatic plant species and their value addition.

4.11 Marketing:

4.11.1 The policy recognizes the constraints in marketing of NTFP produce and products thereof. It is generally observed that, most of the past endeavour in promotion of livelihood avenues for communities remained unfruitful due to lack of (a) understanding on market dynamics (b) credible market linkages.

4.11.2 Therefore, it mandates on market research component. A dedicated agency is to be identified to take care of marketing and brand building. Market research need to be oriented backwards from the needs of market would be initiated.

4.11.3 Assistance from Export Promotion Council for Handicrafts (EPCH) and other organizations would be taken in this regard. Further, Crafts & More, a brand of Tripura JICA project, now of NCE for marketing products to be manufactured by SHGs/LJGs/JFMCs/BMCS may take lead role in marketing of products of NTFP.

4.11.4 Market opportunities created by TRIFED through minimum support price mechanism and the scheme of Van-Dhan Yojana of Ministry of Tribal Affairs should be leveraged.

4.11.5 Further, engagement with social enterprises, socially responsible business houses is warranted. NCE is mandated with identification and development of business partnerships with such organizations that are willing to consider the community

dimension to the business and willing to support clusters/ CCFCs in value addition as well as quality management.

4.12 Handicrafts sector development:

- 4.12.1 With rich populations and diversity of Bamboo species, a Tripura state is endowed with tremendous opportunities for bamboo-based handicrafts. Traditional skills of local artisans in creating valued products from Bamboo need to be harnessed systematically.
- 4.12.2 Regular survey of private handicraft sector at two years interval be carried out by Directorate of Handicraft and Sericulture to update the database relating to details of artisans, product range and technology adopted, raw material requirement and capacity of production.
- 4.12.3 The handicraft sector requirements would be linked in a coordinated manner to the community plantation and usage plan. Existing requirement of semi-processed and treated raw material of handicrafts sector is presently being met through manual processing of whole bamboo by artisans. In the process, productivity and quality of products are adversely affected. Integrated linkage is to be provided to bring technical and technological solutions and facilities to the producer's doorstep.
- 4.12.4 Community-Common Facility Centres (CCFCs) has to be promoted to enhance quality and durability of handicrafts items and also to facilitate reduction of wastes, drudgery and physical risks.
- 4.12.5 Facilities for bamboo quality verification and testing are to be developed at all such CCFCs along with appropriate processing and treatment facilities for value addition. A system of certification would be put in places to promote sustained improved quality that meets buyer needs.
- 4.12.6 Local talent for product design, development and diversification is to be promoted by providing regular technical inputs from market and design institutes such as National Institute of Design (NID), Ahmedabad, the Cane and Bamboo Technology Centre (CBTC), Guwahati, as well as agencies and designers abroad.
- 4.12.7 A focused category (product family) specific strategy and business plan would be developed for each cluster which would be supported with required training, raw material and specific jigs, fixtures and tools. Channels would be set up to reach the technologies and design developed externally to the artisan communities. This role may be performed by an external agency which has to work to get new designs and techniques to survive as repetition of content will dilute its offering.

5. Training & Capacity Building:

5.1 Collaboration with Research Institutes:

- 5.1.1 Research activities concerning to NTFPs, all possibilities should be explored for collaborative approach with institutions like ICFRE, RFRI Jorhat or similar institutes with required competencies and resources. It is also desirable to

evolve mechanism to collaborate with international organisations to promote export of value added NTFP products.

5.2 Knowledge Sourcing for Existing Technologies:

- 5.2.1 To strengthen existing knowledge base, linkages should be established with organisations like KVIB, MPBT, RFRI, Industry Department, BCDI, Horticulture Department, Directorate of Skill Development, Spice Board etc.

5.3 Training and capacity building Activities:

- 5.3.1 Training and capacity building of the members of the stakeholder such as JFMCs, BMCs, Gram Panchayat and SHGs should be organized regularly to promote sustainable production of NTFPs and to maintain balance between subsistence use and commercial sale.
- 5.3.2 Industrial Training Institute (ITIs) of the State would be included as part of a program to provide technical manpower required for the sector. Specialist courses would be offered addressing the needs emerging from use of bamboo material and tools for various industrial and mechanical handicraft processes.

5.4 Continuous engagement with extension agencies:

- 5.4.1 For Information, Extension and Communication (IEC) activities, Community Building Organizations (CBOs) / NGOs are to be engaged. These organizations may be assisted with requisite information so that income augmentation options are shared with the target groups. These organizations are encouraged to organize Interactive workshops, buyer-seller meets, preparation/updation of catalogues and showcasing of products and capabilities would be promoted and supported.
- 5.4.2 Support from organizations such as National Informatics Centre (NIC) would be sought whose Community Information Centre programs will help to widen the outreach of extension programmes through Web and Mobile Applications.
- 5.4.3 Door darshan would be leveraged to provide online video-based training content on a scheduled basis. Content could be sourced from organizations such as INBAR and local translations are carried out.

5.5 Ease of Doing Business Policy:

- 5.4.1 Special provisions may be made to encourage NTFP Based Community Enterprise Development by adopting "Ease of Doing Business Policy".

5.6 Certification agencies:

- 5.5.1 Arranging for certification for getting NTFPs certified as organic products to help in getting better price. Certified sources of NTFP propagation material are to be identified and developed.
- 5.5.2 Protocol for cultivation of various NTFPs are to be developed. Further, best practices for NTFP are to be documented.

Section-J: Institutional Mechanism for NTFP Policy

1 Role of Tripura Forests Department:

1.1 In the implementation of NTFP policy, the department is expected to play a major role. The policy envisages the following mechanisms:

1.1.1 The NTFP policy shall be referred to, while formulating the Working plans from time to time.

1.1.2 The NTFP policy makes specific references to Bamboo species. For promotion of Bamboo related interventions, Tripura Government is also implementing the National Bamboo Mission in the state.

1.1.3 Also, Tripura State Bamboo Policy was formulated in 2001.

The department ensures that, the contents of NTFP policy are aligned with the above for all programmes concerning Bamboo.

2 Role of JFMC/BMC/Panchayat/SHGs/JLGs:

2.1 The institutions like JFMCs, BMCs and Village Panchayats should be involved in protection and extraction on sustainable basis. The members of JFMCs/BMCs should be trained and empowered to regulate extraction and transport of bamboo and other NTFPs.

2.2 This will ensure responsible management and usage practices and at the same time reduce the hardship to the locals. Existing institutions like SHGs/ JLGs/ JFMCs/ BMCs are to be involved for collection, value addition of NTFP.

3 Role of Tripura Bio-Diversity Board:

3.1 TBB shall work for conservation and restoration of biodiversity through effective monitoring of PBRs. While designing their interventions, NTFP species with socio-economic importance may be prioritized.

3.2 Further TBB will help-

3.2.1 To ensure sustainable harvesting of Bio-resources from the jurisdiction of BMC. BMC should also take greater active role in management of biodiversity with scientific inputs as envisaged in the Biological Diversity Act, 2002.

3.2.2 To restore bio resources within command area of each BMC with the fund to be received from selling of resources.

4 Role of Panchayat & Village Institutions:

4.1 Management of NTFP resources in each village is a collective responsibility. It is expected that, all types of village Institutions comprising of Panchayats, JFMCs, BMCs work in tandem work to fulfil this collective responsibility.

5 Forest Development Agency:

- 5.1 The collectives of NTFP gatherers/ JFMCs/ SHGs/ JLGs can come together to form a consortium at sub-division/ district level for the purpose of marketing. Alternatively, existing FDA's can be considered as NTFP based federations at sub-division level. FDA shall encourage the consortia/SHGs in promotion of NTFP sector.

6 Role of NTFP Centre of Excellence (NCE):

- 6.1 The NTFP Centre of Excellence which is now a registered Society under Society's Registration Act, 1860 is focusing on conservation and sustainable development of resource on one hand and, to improve the livelihoods of forest dependent households, on the other hand. NCE will play key role in ensuring sustainable management of the NTFP resources. Inventory and mapping of resources will be done engaging appropriate organization/agency.
- 6.2 NCE shall collect, compile and collate the product specific/NTFP specific information including productivity increase, processing, sustainable harvesting limits, storage, packaging, value additions and economic returns so as to emerge as single window strategic knowledge source through NTFP web portal.
- 6.3 NCE shall carryout/ facilitate required training, awareness programme for management of NTFP resources to all stakeholders. NCE shall enable people and regulators to enforce responsible management and use practices for bamboo as well as for other NTFPs to stop declining of resources.
- 6.4 NCE shall help to constitute community-based organizations like cooperative \ and trade of NTFPs. NCE shall establish State NTFP Germplasm Bank/ Demo-centres for awareness, training and capacity building of stakeholders.
- 6.5 NCE shall facilitate storage, grading, packaging and value addition through convergence of existing schemes programmes in private and public sector.
- 6.6 NCE shall provide guidance for production of quality planting material, certification of NTFP nurseries.
- 6.7 NCE shall organise buyer and seller meet, assist in making price discovery of NTFPs and Coordinate with other Institutes.
- 6.8 NTFP centre of excellence shall strive to attain e-governance for all the information related endeavours. All NTFP related information must be uploaded on the website so that people get instant information to their respective queries. Van Vikas Kendra's (NTFP Interpretation Centres) must be envisioned in each district.
- 6.9 NCE shall work as coordinating agency for all NTFP related works so as to converge the information and dissemination at faster pace as well as income generation. It shall also work as coordinator with clusters, CFCs and traders, exporters and develop innovative products to capture international markets.

- 6.10 NCE will sensitize the stakeholders to provide minimum support price for the sale of NTFPs collected by the forest dependent families to promote and support their livelihood.
- 6.11 Wide awareness on how to raise nursery, plantation technique, harvesting procedure and other NTFP related issues are to be made available to public through monthly/quarterly newsletter, MANJARI.

Section-K: Implementation of Strategic Plans for NTFP

1 Institutional Framework:

- 1.1. Keeping in view the developmental needs of the Sector, NTFP Centre of Excellence has been created already. This Institution shall serve as nodal agency for implementation, review and monitoring the strategic plan as laid down in the policy.
- 1.2. However, it is pertinent to note the role of TFD is in ownership, management and microplanning activities. NCE shall coordinate and work in tandem with TFD and allied Institutions like State Medicinal Plants Board, Tripura Biodiversity Board, Tripura Bamboo Mission who are assigned with statutory and/or facilitatory responsibilities.
- 1.3. NCE further networks with other line departments like Department of Agriculture/ horticulture, department of Industry and Commerce, MSME-DI, Industry Associations etc.
- 1.4. Partnerships & Collaborations:
 - 1.4.1 At various levels of this strategic plan for NTFP development, need for collaboration/ networking are identified and enumerated. Specific emphasis is laid down for networking with:
 - a) Academia, research & development organizations dealing with the subjects of Natural Resources Management, Rural Technologies and allied domains.
 - b) Community building organizations/ NGOs.
 - c) Industries in general and social enterprises in particular.

2 Funding Agencies:

- 2.1 There are ongoing schemes of National Medicinal Plant Board, National Bamboo Mission (NBM), MoEF&CC, Ministry of Tribal Affairs (MOTA), GoI etc. For bamboo planting & processing, there are resources available with GoI. Similarly, for collection and processing of broom grass and medicinal plants there is a funding from National Cooperative Federation if the operation is organized through primary NTFP cooperatives set up with some institutional structure. Besides, fund of state govt. EAPs can also be utilised for resource generation. Thus, the entire expenditure

on sustainable development of these resources can be met from various on-going Central/ State schemes.

- 2.2 Under provisions of Companies Act, corporate entities are required to carry-out mandatory Corporate Social Responsibilities (CSR) activities. The CSR policy for this purpose includes contributions to biodiversity as well. Efforts should be made to leverage this opportunity also.

3 Engagement with Industry& Trade:

- 3.1 A continuous dialogue with industry has to be maintained to understand the market requirement so as to ensure product development or value addition as per needs or the market for enabling forest dwellers to enhance their incomes. The location of production and value addition must be optimised so as to minimise cost on transportation and wastage. High value and low volume items may be focussed.

4 Documentation:

- 4.1 Documentation is key to successful implementation of strategies for development of NTFP sector in the state. NCE is mandated to develop a single-window centre of documented knowledge base. The knowledge base shall include both traditional practices and modern practices of resource management and utilization.
- 4.2 In the context of documenting traditional knowledge, well-coordinated mechanisms need to be evolved to bring synergies with PBRs.

5 Traditional Healers Programme:

- 5.1 It is well known that, NTFP species are critical resources for ensuring health security of the communities. This live tradition is being carried forward by Traditional healers through generations. It is also well known that, their contribution to health care delivery systems went unrecognized all the while.
- 5.2 Development of NTFP sector may remain incomplete without their inclusion in the policy.
- 5.3 In order to fill this gap, NTFP strategic plan seeks to optimize their services to the rural communities through appropriate recognition. For this purpose, appropriate project shall be evolved for certification of traditional healers through VCSTCHP (Voluntary Certification Scheme for Traditional Community Healthcare Providers)-launched by Ministry of AYUSH, Government of India in collaboration with Quality Council of India.
 - 5.3.1 Once certified, appropriate rewarding mechanisms may also be evolved.

Section- L: WAY FORWARD

1. The policy endeavour shall be to maximise returns from land based productive activities permissible under the law. The conservation, sustainable use and access benefit sharing amongst the custodians, collectors/ cultivators/ forest dwellers have to be planned, executed and monitored so as to make a dent on rural economy while sustaining the out turns. Policy needs revision in next three years so as to

accommodate emerging demands of industry or markets. NCE will emerge as strategic knowledge source for all NTFPs in the span of next three years.

2. This policy is dynamic in character. It shall be reviewed and modified from time keeping the spirit of vision and core objectives sacrosanct.


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